

SOFTWARE DEVELOPMENT ENGINEER IN TEST

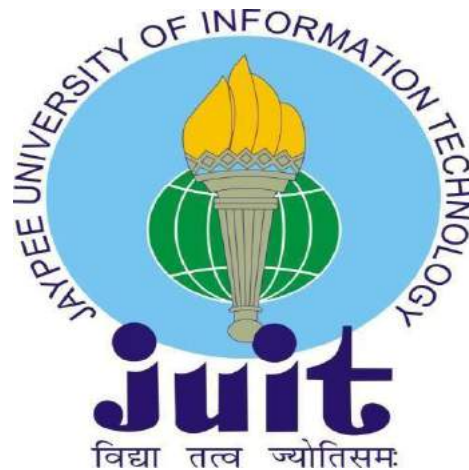
Internship report submitted in partial fulfillment of the
requirement for the degree of Bachelor of Technology

In

**Computer Science and Engineering/Information
Technology**

By

Himanshu Mutneja (171307)



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An Internship Report with regard to Cognizant Internship.

ACKNOWLEDGEMENTS

This is a matter of pleasure for me to acknowledge my deep sense of gratitude to Jaypee University and my college, Jaypee university of information technology for giving me an opportunity to explore my abilities via this internship program. I would like to express my sincere gratitude to our TnP officer, Mr. Pankaj Kumar and our faculty Coordinator, Dr. Nafis U Khan for this opportunity. I also wish to express my gratitude to my internship supervisor, for their valuable guidance and advice in completing this project.

I would like to record my sincere appreciation and gratitude towards all the officials and employees of cognizant, without whose kind assistance, my internship program would not have succeeded. The facts and other vital information provided by them have contributed towards making this report as comprehensive as possible. I am indeed thankful to them.

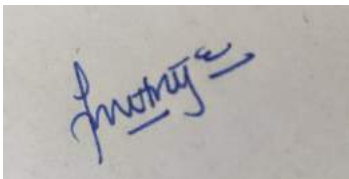
Last but not the least, I would like to express my sincere thanks to all my family members, friends and well-wishers for their immense support and best wishes throughout the internship duration and the preparation of this report.

I believe that this report will be a valuable asset not only for academic institution, but will also be useful for all those who are interested to learn about internship experiences in auditing and consulting firm.

CANDIDATES DECLARATION

I hereby declare that the work presented in this report entitled “**Internship Report**” in partial fulfillment of the requirements for the award of the degree of **Bachelor of Technology in Computer Science and Engineering/Information Technology** submitted in the department of Computer Science & Engineering and Information Technology, Jaypee University of Information Technology Waknaghat is an authentic record of my own work carried out over a period from Feb 2021 to May 2021 under the supervision of Mr. **Abhijit Joshi**(Trainer at Cognizant).

The matter embodied in the report has not been submitted for the award of any other degree or diploma.



Himanshu Mutneja

This is to certify that the above statement made by the candidate is true to the best of my knowledge.

Mr. Abhijit Joshi
Trainer at cognizant
Dated: 21/05/21

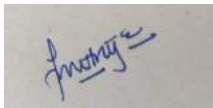
PROJECT REPORT UNDERTAKING

I, Mr. Himanshu Mutneja, Roll No. 171307, Branch - Computer Science and Engineering is doing my internship with Cognizant from 06-03-21 to 16-08-21.

As per procedure I have to submit my project report to the university related to my work that I have done during this internship.

I have compiled my project report. But due to COVID-19 situation my project mentor in the company is not able to sign my project report.

So, I hereby declare that the project report is fully designed/developed by me and no part of the work is borrowed or purchased from any agency. And I'll produce a certificate/document of my internship completion with the company to TnP Cell whenever COVID-19 situation gets normal.



Name: Himanshu Mutneja

Roll No.: 171307

Date: 21-05-2021

ABSTRACT

At Gen c program in Cognizant, we are divided into certain domains each domain has specific amount of training period varying from 12 weeks to 19 weeks. Internship includes various events such as educational workshops, webinars, Udemey courses, and group work assignments.

A large IT company based in the United States and India Cognizant employed a large number of Indians last year, and it now employs about 3 lakh employees. The Cognizant Corporation also recruits and hires international workers from all around the globe.

Cognizant provides up with various services to a large number of clients in IT industry they also have tie with one of the fastest growing companies. Work culture is just as professional as expected.

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CHAPTER 1: ORGANIZATION

1.1 Background:

After the end of 7th semester, various company visited to our college for the placement of the student, one such company was cognizant, due to my good fortune, I was selected for Gen-C profile, after selected as Gen-C, I was offered a internship program by the cognizant before the full time role and completing internship is necessary for the full time role in the cognizant. The internship was of around 12 weeks containing various sessions, webinar, online Udemey courses, assessment and project.

Cognizant is one of the top IT company in the India, and major IT company in US. Cognizant employees are around 3 lakhs in number and recruit around 20 thousand fresh people every year from India. Cognizant also hires from different country across the globe.

Cognizant offers various role in the company like develop, Designer, Tester and Manager in the company, but, before becoming the associate every person should complete the intern period and after the intern period there is one year of probation period in the company for the associate to join the company.

Cognizant also provide stipend during the internship period which is around 12 thousand per month to the interns pursing internship in the internship.

But the total amount comes in persons hand is 10800 only because 1200 get cuts for the purpose related to the tax.

The internship period varies and depends on the roles, which the intern gets, like someone who got developer profile, for them internship period will be of around 4-5 months and for the quality insurance, it might vary from 5-6 month.

The domain allocation is random in the cognizant for the interns, but sometime it depends on the assimilation test also, the person who got higher marks in assimilation test, will have higher chances to get better profile or domain and it also depends on the first come first serve basis.

1.2 Mission, vision, values and objectives

Mission – Cognizant mission is to train every fresh person who got selected in to the cognizant. Cognizant provide internship to every person who got selected in the cognizant.

Every year cognizant train college fresh out student in bulk number before giving them the associate role. This recruit happens from all college over the India.

Cognizant spends much time, effort and money in training the intern before giving them the actual work and before them to work in the real environment.

Vision - The cognizant vision is to train every fresh out student recruited from the college no matter from which college the persons come.

Values

The values of the organization are as follows:

- *Valuing People*

We believe that our success depends first and foremost on people. By respecting people in everything we do, we will develop and maintain high quality, mutually beneficial relationships with our clients, professional colleagues, referral sources, vendors, community members and each other.

- *Building Client Relationships*

We seek to earn long-term client loyalty by developing a deep understanding of each client's business and personal goals, by demonstrating unwavering reliability and integrity in our work and by acting as an independent and objective advisor to our clients.

- *Upholding Quality and Integrity*

We will maintain an environment where a commitment to quality, honesty, respect, fairness and professional ethics governs the actions and decisions of everyone within our firm.

Keys to Success:

- Complete the work with full honesty.

- Complete the work on time.
- Complete the assessment.
- Complete the project within schedule time.
- Try to learn as much as possible from the SME, Trainer, mentor.
- Open to learn anything taught.

Objectives:

The objectives of Cognizant are:

- The overall objective is to focus the activities towards its specialized services and to become a leader in this niche in the country.
- Growth - To expand the business at a rate that is both challenging and manageable, serving the market with innovation and adaptability.

1.3. Ice breaker

Week 1:

- Corporate induction.
- Talent Manager connect.
- Cognizant Agenda session on core values.
- Leaders Talk (Academy) and many more.

Week 2:

- Behavior Skills.
- Agile Workshop.
- Dev-Ops Workshop.
- Behavior session.

IceBreaker



Fig. 1: Ice Breaker

CHAPTER - 2

INTERNSHIP PROGRAM SEQUENCE

2.1 Stage 1 – Functional Testing

I was inducted as a team member in my cohort then, this functional testing program started, this testing fundamentals consist of a single week training in which we have to learn various technology and do various hands-on and assessment during this functional testing sequence.

Week 1:

- Functional Testing.

In this week we all have to do is to complete Udemy courses provided by the cognizant during the internship, complete the hands-ons, assessment(important), and to complete the integrated capability test also.

In this week 1 we learned the designing part in which we have to test the applications.

After we completed the online Udemy courses, we did the hands-ons and completing the hands- on is mandatory for every intern and then, after completing the hands-ons we use to give assessment, a small test whose marks were taken into account, for the calculation of the in the final overall performance.

The most important part of this week was making of testing report which was the most crucial part of functional testing.

It also covered the usage of MS Office Package.Below is the sample report of the testing which was done during the training.

Hotel Booking Hands on (1) - Microsoft Excel (Product Activation Failed)

File Home Insert Page Layout Formulas Data Review View

Normal Page Layout Page Break Custom Full Ruler Formula Bar Zoom 100% Zoom to Selection New Arrange Freeze Split View Side by Side Save Switch Macros
 Layout Preview Views Screen Gridlines Headings 100% Zoom to Selection Window All Panes Hide Synchronous Scrolling Workspace Windows
 Workbook Views Show Zoom Window Macros

C20

	B	C	D	E	F	G
1	Defect id	Description	Reproducible (yes/no)	Steps to reproduce	Severity	Priority
2	DEF_001	On Clicking International "Radio Button", the List Box country is not displayed	Yes	PreCondition - The Website for Raj Travels should be loaded	Critical	Critical
3		Expected Result - The List Box Country should be displayed		Steps to Reproduce:		
4		Actual Result - The List Box Country is not displayed		1. Open google Chrome		
5				2. Launch the website "www.raj.tave"		
6				3. Select the International Radio Button		
7	DEF_002	On Selecting the Check-out date greater than Check-in date and all other valid data the website displays a "Yes"		PreCondition - The Website for Raj Travels should be loaded and India radio button should be displayed		
8		Expected Result - An error message should be displaying quoting check-out date greater than check-in date		Steps to Reproduce:	High	High
9		Actual Result - All the data fields are displayed despite none of the fields should be displayed		1. Open google Chrome		
10				2. Launch the website "www.raj.tave"		
11				3. Choose the desired Radio Button "India" or "International"		
12				3. Select a valid check out date and select a valid check in date greater than the check out date		
13	DEF_003	When the traveller selects the city as "Delhi" the details of the city "Calcutta" are displayed	Yes	4. Select the Launch Button		
14		Expected Result - The Details for the City "Delhi" should be displayed.		PreCondition - The Website for Raj Travels should be loaded	High	High
15		Actual Result - The Details for the City "Calcutta" are displayed inspite of "Delhi".		Steps to Reproduce:		
16				1. Open google Chrome		
17				2. Launch the website "www.raj.tave"		
18				3. Select India Radio Button		
19				4. Select City as "Delhi"		
20				5. Select remaining fields with valid data		
21				6. Select the Launch Button		
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37						

Ready | Index TEST SCENARIO TEST CASES DEFECT REPORT RTM | 75%

Fig. 2: Defect Report

2.2 Stage 2- Core and Advanced Java

Week 2,3,4:

- Programming with java with JDBC
- Behavioral skills

In this week we all have to do is to complete Udemey courses provided by the cognizant during the internship, complete the hands-ons, assessment(important), and to complete the integrated capability test also.

In this week 2 we learned the core java part from scratch with the help of the Udemey courses and trainer guide queries.

After we completed the online Udemey courses, we did the hands-ons and completing the hands- on is mandatory for every intern and then, after completing the hands-ons we use to give assessment, a small test whose marks were taken into account, for the calculation of the in the final overall performance.

The most important part of this week was covering all the basis aspects of the core java and learning JDBC and database connectivity with database from scratch because learning java and JDBC is very important in application development.

It also covered integrating of Core java and JDBC with the database to form proper webpage.

This part was very long because it was 3 week long, and we started from core java to advance java part also, connecting small core java with database through database connectivity or JDBC.

These 3 weeks waere very important because we learned very crucial things in this 3 weeks, the most important, that very developer should know for developing application.

We did around 30 hands-ons in this part, the hands-ons were very long and difficult in this part.

The most important thing in those 3 weeks was basics of core java. We learned core java from basics and covering all aspects of the java, its features, it's uses and how to develop an application from scratch with the help of the java and connecting with database through JDBC.

JDBC was very important part in this 3 weeks because every application requires the database connectivity, and that's only possible with the database connectivity through JDBC.

We learned all aspects of the JDBC, all types of the Database connectivity and storing data in the tables in the database and also retrieving the data from the database using few lines of the codes.

Connecting to the database is very crucial in the application development and also is the major part in the application development.

Our trainer taught that 4 lines of code will do the same in every code of JDBC, that 4 lines should be known to every java developer who is working with the application development.

We also learned few packages which are very essential in connecting with the database and without those packages, it would not be possible to connect to the database. We also learned 4 types of database connectivity in the java application development.

Below is the sample example of few lines of the codes to store data and retrieve from the table from database.

```

import java.sql.*;

public class FirstExample {
    static final String DB_URL = "jdbc:mysql://localhost/TUTORIALSPOINT";
    static final String USER = "guest";
    static final String PASS = "guest123";
    static final String QUERY = "SELECT id, first, last, age FROM Employees";

    public static void main(String[] args) {
        // Open a connection
        try(Connection conn = DriverManager.getConnection(DB_URL, USER, PASS);
            Statement stmt = conn.createStatement();
            ResultSet rs = stmt.executeQuery(QUERY);) {
            // Extract data from result set
            while (rs.next()) {
                // Retrieve by column name
                System.out.print("ID: " + rs.getInt("id"));
                System.out.print(", Age: " + rs.getInt("age"));
                System.out.print(", First: " + rs.getString("first"));
                System.out.println(", Last: " + rs.getString("last"));
            }
        } catch (SQLException e) {
            e.printStackTrace();
        }
    }
}

```

Fig. 3: JDBC

Above is the small code of database connectivity or JDBC code.

Week-4(continuity)

Access type – 2 (Integrated Capability Test)

After completing few technologies, we had Integrated capability test, in which we combine our all knowledge what we learned in past java, JDBC, and try to solve whole long coding question.

Integrated capability test is of 4 hours, which include all the things what we had learned till now.

It consists of 1 coding question and require full knowledge of all the technologies and integrate that to solve the coding question.

It's a simple or medium size project, which we get as a question in the Integrated capability test within 4 hours.

It contains the huge weightage in the overall performance, the overall performance is calculates as the average of the assessment, Integrated capability test, Business unit score, Project score.

We get two attempts to give the integrated capability test, if we get failed in first attempt then, we get second attempt to give integrated capability test.

And the second attempt is the last attempt to Integrated capability test because failing in the second attempt can lead to the termination of the offer said by the HR in the one session.

2.3 Stage 3 – Web, UI, and Data source

Week 5:

- XML

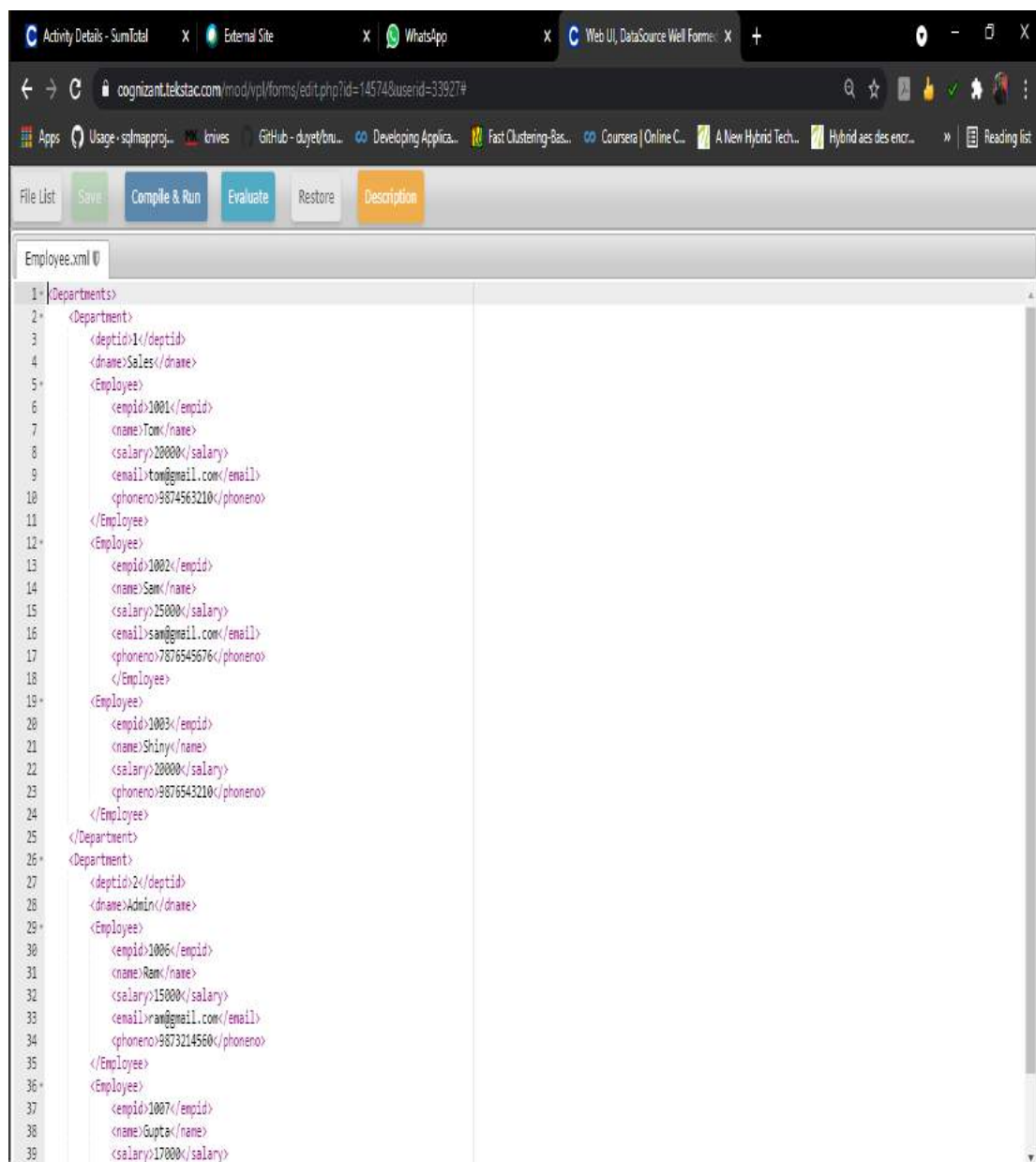
This is the second stage, deep learning the application development through the advance framework of the java. This is stage we learned XML framework.

XML is a markup language that defines a set of rules for encoding documents in a format that is both human-readable and machine-readable. The World Wide Web

Consortium's XML 1.0 Specification of 1998 and several other related specifications—all of them free open standards—define XML.

The design goals of XML emphasize simplicity, generality, and usability across the Internet. Several schema systems exist to aid in the definition of XML-based languages, while programmers have developed many application programming interfaces (APIs) to aid the processing of XML data.

Below is the sample XML code.



```
Employee.xml
1 <Departments>
2   <Department>
3     <deptid>1</deptid>
4     <dname>Sales</dname>
5     <Employee>
6       <empid>1001</empid>
7       <name>Tom</name>
8       <salary>20000</salary>
9       <email>tom@gmail.com</email>
10      <phonenumber>9874563210</phonenumber>
11    </Employee>
12    <Employee>
13      <empid>1002</empid>
14      <name>Sam</name>
15      <salary>25000</salary>
16      <email>sam@gmail.com</email>
17      <phonenumber>7876545676</phonenumber>
18    </Employee>
19    <Employee>
20      <empid>1003</empid>
21      <name>Shiny</name>
22      <salary>20000</salary>
23      <phonenumber>9876543210</phonenumber>
24    </Employee>
25  </Department>
26  <Department>
27    <deptid>2</deptid>
28    <dname>Admin</dname>
29    <Employee>
30      <empid>1006</empid>
31      <name>Ram</name>
32      <salary>15000</salary>
33      <email>ram@gmail.com</email>
34      <phonenumber>9873214560</phonenumber>
35    </Employee>
36    <Employee>
37      <empid>1007</empid>
38      <name>Gupta</name>
39      <salary>17000</salary>
```

Fig. 4: XML

- Web designing with HTML, CSS and Bootstrap.
- JavaScript.

In this week we all have to do is to compete Udemy courses provided by the cognizant during the internship, complete the hands-ons, assessment(important), and to complete the integrated capability test also.

In this week we learned the designing part from scratch with the help of the HTML5 and CSS and also JavaScript.

After we completed the online Udemy courses, we did the hands-ons and completing the hands- on is mandatory for every interns and then, after completing the hands-ons we use to give assessment, a small test whose marks were taken into account, for the calculation of the in the final overall performance.

The most important part of this week was covering all the basis aspects of the designing and learning HTML and CSS and JavaScript from scratch because learning HTML and CSS is very important in designing.

It also covered integrating of HTML and CSS with the JavaScript to form proper webpage.

Below is the sample HTML and CSS, and JavaScript Code.

```

CSSpractice.html x
1 <!DOCTYPE html>
2 <html lang="en-US">
3   <head>
4     <link rel="stylesheet" href="css/style.css" />
5     <title>HTML Page with CSS</title>
6   </head>
7   <body>
8     <header>
9       Fake Industry Expo Announcement
10    </header>
11    <article>
12      Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do
13      velit esse cillum dolore eu fugiat nulla pariao csstur. Excepter
14    </article>
15    <footer>
16      &copy; Copyright Imaginary Organization 2016
17    </footer>
18  </body>
19 </html>

style.css
1 body {
2   font-family: 'Segoe UI', Tahoma, Geneva, Verdana, sans-serif;
3 }
4 article {
5   color: #5C373C;
6   margin: 10px;
7 }
8 footer {
9   font-size: x-small;
10  font-style: italic;
11  background-color: #C14860;
12  padding: 10px;
13 }
14 header {
15  font-size: x-large;
16  font-weight: bold;
17  text-align: center;
18  background: -moz-linear-gradient(#051118, #5C373C);
19  color: #CAA893;
20  border: thin #CAA893 inset;
21  margin: 20px 30px;
22  padding: 10px 20px;
23 }

```

Fig. 5: JS

Week 7, 8:

- Database and Data source.

In this week we all have to do is to complete UdeMy courses provided by the cognizant during the internship, complete the hands-ons, assessment(important), and to complete the integrated capability test also.

In this week 2 we learned the database part from scratch with the help of the MySQL and MySQL queries.

After we completed the online UdeMy courses, we did the hands-ons and completing the hands- on is mandatory for every interns and then, after completing the hands-ons we use to give assessment, a small test whose marks were taken into account, for the calculation of the in the final overall performance.

The most important part of this week was covering all the basis aspects of the database and learning MySQL and queries and database from scratch because learning MySQL and queries is very important in database.

It also covered integrating of HTML and CSS with the database to form proper webpage.

Below is the sample MySQL code.

```
1 shell> mysql your-database-name
```

Fig. 6: SQL

```

1 CREATE TABLE shop (
2     article INT UNSIGNED DEFAULT '0000' NOT NULL,
3     dealer CHAR(20)      DEFAULT ''      NOT NULL,
4     price  DECIMAL(16,2) DEFAULT '0.00' NOT NULL,
5     PRIMARY KEY(article, dealer));
6 INSERT INTO shop VALUES
7     (1, 'A', 3.45), (1, 'B', 3.99), (2, 'A', 10.99), (3, 'B', 1.45),
8     (3, 'C', 1.69), (3, 'D', 1.25), (4, 'D', 19.95);

```

Fig. 7: SQL 2

```

1 SELECT * FROM shop ORDER BY article;
2
3 +-----+-----+-----+
4 | article | dealer | price |
5 +-----+-----+-----+
6 |      1 | A     | 3.45 |
7 |      1 | B     | 3.99 |
8 |      2 | A     | 10.99 |
9 |      3 | B     | 1.45 |
10 |      3 | C     | 1.69 |
11 |      3 | D     | 1.25 |
12 |      4 | D     | 19.95 |
13 +-----+-----+-----+

```

Fig. 8: SQL 3

CHAPTER - 3

SOFTWARE REQUIREMENT SPECIFICATION (SRS)

- **Microsoft Office Package**

Microsoft Office is a suite of desktop productivity applications that is designed specifically by Microsoft for business use. It is a proprietary product of Microsoft Corporation and was first released in 1990. For decades, MS Office has been a dominant model in delivering modern office-related document-handling software environments.

- **Eclipse**

Eclipse is an integrated development environment (IDE) used in computer programming.^[5] It contains a base workspace and an extensible plug-in system for customizing the environment. Eclipse is written mostly in Java and its primary use is for developing Java applications, but it may also be used to develop applications in other programming languages via plug-ins, including Ada, ABAP, C, C++, C#, Clojure, COBOL, D, Erlang, Fortran, Groovy, Haskell, JavaScript, Julia,^[6] Lasso, Lua, NATURAL, Perl, PHP, Prolog, Python, R, Ruby (including Ruby on Rails framework), Rust, Scala, and Scheme. It can also be used to develop documents with LaTeX (via a TeXlipse plug-in) and packages for the software Mathematica. Development environments include the Eclipse Java development tools (JDT) for Java and Scala, Eclipse CDT for C/C++, and Eclipse PDT for PHP, among others.

- **Visual Studio Code**

Visual Studio Code is a freeware source-code editor made by Microsoft for Windows, Linux and macOS.^[9] Features include support for debugging, syntax highlighting, intelligent code completion, snippets, code refactoring, and embedded Git. Users can change the theme, keyboard shortcuts, preferences, and install extensions that add additional functionality.

- **MS SQL**

Microsoft SQL Server is a relational database management system developed by Microsoft. As a database server, it is a software product with the primary function of storing and retrieving data as requested by other software applications—which may run either on the same computer or on another computer across a network (including the Internet). Microsoft markets at least a dozen different editions of Microsoft SQL Server, aimed at different audiences and for workloads ranging from small single-machine applications to large Internet-facing applications with many concurrent users.

- **Cisco WebEx**

Cisco WebEx is an American company that develops and sells web conferencing and videoconferencing applications. It was founded as WebEx in 1995 and taken over by Cisco Systems in 2007. Its headquarters are in Milpitas, California.

Its software products include WebEx Meetings, WebEx Teams, Training Centre, Event Centre, Support Centre, Sales Centre, MeetMeNow, PCNow, Webex AIM Pro Business Edition, WebEx Web Office, and WebEx Connect. All WebEx products are part of the Cisco Systems collaboration portfolio.

CHAPTER - 4

RESULT AND PERFORMANCE ANALYSIS

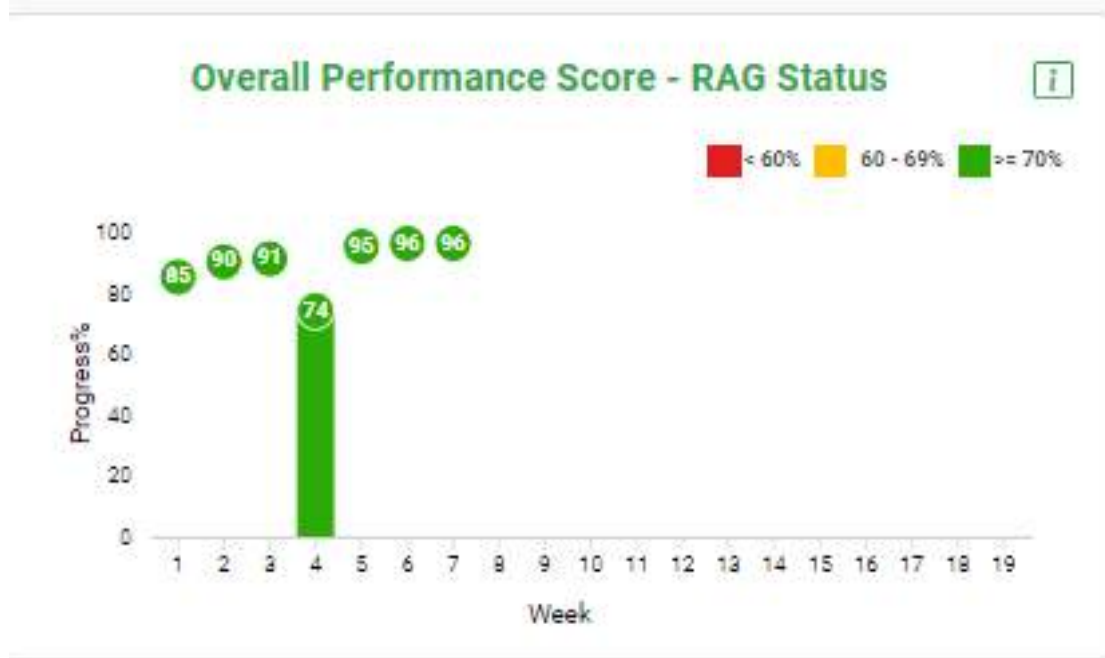


Fig. 9: RAG



Fig. 10: Performance Status



Fig. 11: Practice Progress

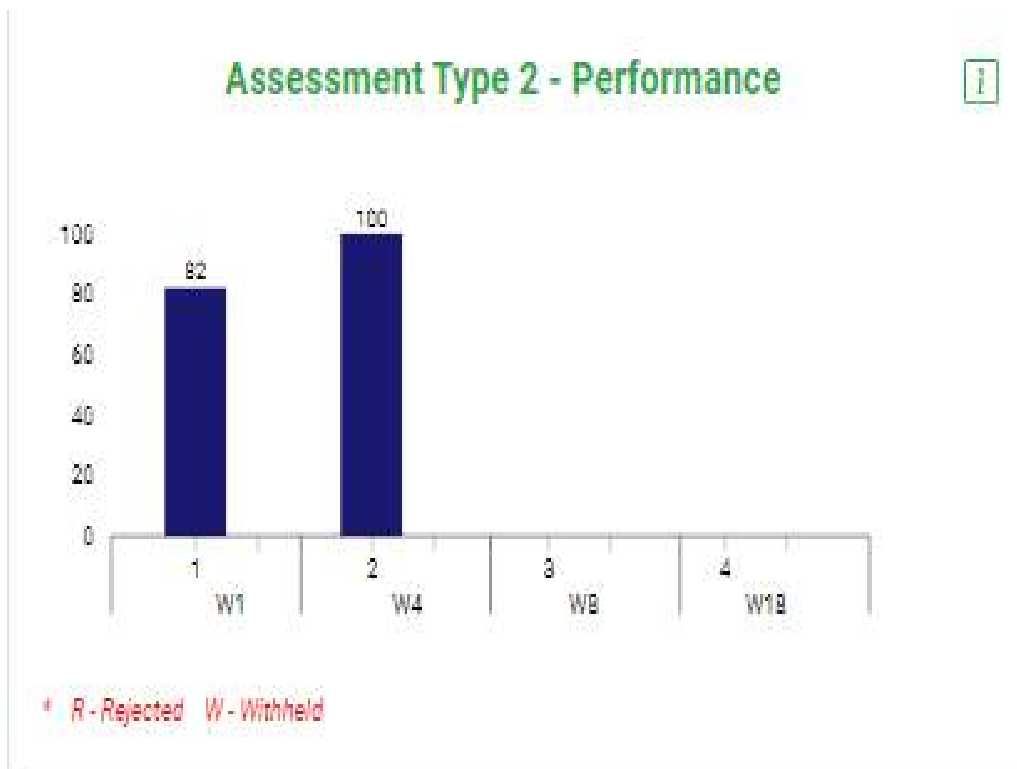
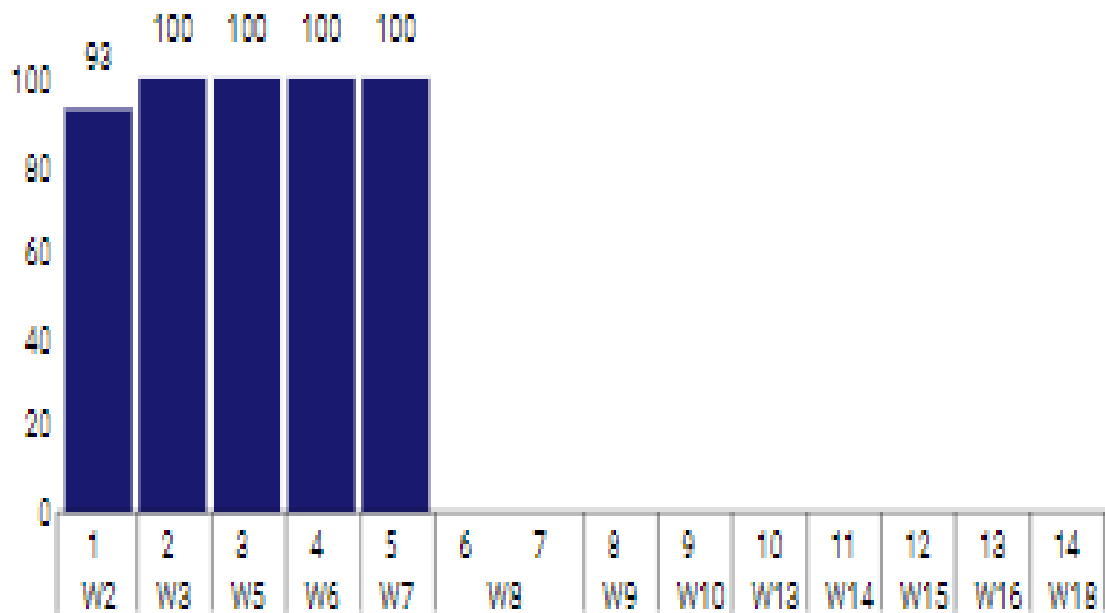


Fig. 12: ICT Progress

Assessment Type 1 - Performance



* R - Rejected W - Withheld

Fig. 13: Code Challenge Progress

CHAPTER -5

CONCLUSION

5.1 Conclusion

I am still on the way doing my internship with the cognizant and I have learned so much from this internship offered by the internship, rally helped me in shaping my personality and equipping me with the knowledge of this technologies.

My Final internship project is still remaining with cognizant internship and I will give my best in doing the internship project.

I like to thanks in advance to the coaches, SME, mentor and trainer of cognizant who guided me through the whole journey of my internship in cognizant and solved all my doubts during the internship. The Coaches, SME, Mentor and trainer were all of good nature and at every moment helped me when I was doing wrong and shaped me during my whole internship.

Specially the my mentor gave his more effort during the internship and passed our all query to the higher authority in the company whether it was related to the reattempt of the assessment, technical issue faced in the assessment or providing extra time to complete the work.

I would highly recommend my juniors once to prepare well for the offer in the cognizant and get the internship opportunity form the cognizant because cognizant is top fortune company in the information technology field.

I like thank you my TNP officer Mr. Pankaj Kumar and Faculty member Dr. Nafis U khan sir for their support and hard work during the whole placement process because I know how complex is the management of the placement drive.

REFERENCES

- Cognizant Hand book
- Internship experience
- Assessment
- Cognizant internship curriculum

Himanshu_mutunja_major

by Himanshu Mutunja

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CHAPTER 1: ORGANIZATION

1.1 Background:

After the end of 7th semester, various company visited to our college for the placement of the student, one such company was cognizant, due to my good fortune, I was selected for Gen-C profile, after selected as Gen-C, I was offered a internship program by the cognizant before the full time role and completing internship is necessary for the full time role in the cognizant. The internship was of around 12 weeks containing various sessions, webinar, online UdeMy courses, assessment and project.

Cognizant is one of the top IT company in the India, and major IT company in US. Cognizant employees are around 3 lakhs in number and recruit around 20 thousand fresh people every year from India. Cognizant also hires from different country across the globe.

Cognizant offers various role in the company like develop, Designer, Tester and Manager in the company, but, before becoming the associate every person should complete the intern period and after the intern period there is one year of probation period in the company for the associate to join the company.

Cognizant also provide stipend during the internship period which is around 12 thousand per month to the interns pursing internship in the internship.

But the total amount comes in persons hand is 10800 only because 1200 get cuts for the purpose related to the tax.

The internship period varies and depends on the roles, which the intern gets, like someone who got developer profile, for them internship period will be of around 4-5 months and for the quality insurance, it might vary from 5-6 month.

The domain allocation is random in the cognizant for the interns, but sometime it depends on the assimilation test also, the person who got higher marks in assimilation test, will have higher chances to get better profile or domain and it also depends on the first come first serve basis.

1.2 Mission, vision, values and objectives

Mission – Cognizant mission is to train every fresh person who got selected in to the cognizant. Cognizant provide internship to every person who got selected in the cognizant.

Every year cognizant train college fresh out student in bulk number before giving them the associate role. This recruit happens from all college over the India.

Cognizant spends much time, effort and money in training the intern before giving them the actual work and before them to work in the real environment.

Vision - The cognizant vision is to trainer every fresh out student recruited form the college no matter from which college the persons come.

Values

The values of the organization are as follows:

- *Valuing People*

We believe that our success depends first and foremost on people. By respecting people in everything we do, we will develop and maintain high quality, mutually beneficial relationships with our clients, professional colleagues, referral sources, vendors, community members and each other.

- *Building Client Relationships*

We seek to earn long-term client loyalty by developing a deep understanding of each client's business and personal goals, by demonstrating unwavering reliability and integrity in our work and by acting as an independent and objective advisor to our clients.

- *Upholding Quality and Integrity*

We will maintain an environment where a commitment to quality, honesty, respect, fairness and professional ethics governs the actions and decisions of everyone within our firm.

Keys to Success:

- Complete the work with full honesty.

- Complete the work on time.
- Complete the assessment.
- Complete the project within schedule time.
- Try to learn as much as possible from the SME, Trainer, mentor.
- Open to learn anything taught.

Objectives:

The objectives of Cognizant are:

- The overall objective is to focus the activities towards its specialized services and to become a leader in this niche in the country.
- Growth - To expand the business at a rate that is both challenging and manageable, serving the market with innovation and adaptability.

1.3. Ice breaker

Week 1:

- Corporate induction.
- Talent Manager connect.
- Cognizant Agenda session on core values.
- Leaders Talk (Academy) and many more.

Week 2:

- Behavior Skills.
- Agile Workshop.
- Dev-Ops Workshop.
- Behavior session.

IceBreaker



Fig. 1: Ice Breaker

CHAPTER - 2 INTERNSHIP PROGRAM SEQUENCE

2.1 Stage 1 – Functional Testing

I was inducted as a team member in my cohort then, this functional testing program started, this testing fundamentals consist of a single week training in which we have to learn various technology and do various hands-on and assessment during this functional testing sequence.

Week 1:

- Functional Testing.

In this week we all have to do is to complete Udemey courses provided by the cognizant during the internship, complete the hands-ons, assessment(important), and to complete the integrated capability test also.

In this week 1 we learned the designing part in which we have to test the applications.

After we completed the online Udemey courses, we did the hands-ons and completing the hands- on is mandatory for every intern and then, after completing the hands-ons we use to give assessment, a small test whose marks were taken into account, for the calculation of the in the final overall performance.

The most important part of this week was making of testing report which was the most crucial part of functional testing.

It also covered the usage of MS Office Package.Below is the sample report of the testing which was done during the training.

Hotel Booking Hands on (1) - Microsoft Excel (Product Activation Failed)

File Home Insert Page Layout Formulas Data Review View

Normal Page Layout Page Break Custom Full Gridlines Headings Zoom 100% Zoom to Selection New Arrange Freeze Hide Synchronous Scrolling Save Switch Macros

Workbook Views Show Zoom Window All Panes Unhide Reset Window Position Workspace Windows

C20 fx

	B	C	D	E	F	G
1	Defect id	Description	Reproducible (yes/no)	Steps to reproduce	Severity	Priority
2	DEF_001	On Clicking International "Radio Button", the List Box country is not displayed	Yes	PreCondition - The Website for Raj Travels should be loaded	Critical	Critical
3		Expected Result - The List Box Country should be displayed		Steps to Reproduce:		
4		Actual Result - The List Box Country is not displayed		1. Open google Chrome		
5				2. Launch the website "www.raj.tavel"		
6				3. Select the International RadioButton		
7	DEF_002	On Selecting the Check-out date greater than Check-in date and all other valid data the website displays all	Yes	PreCondition - The Website for Raj Travels should be loaded and India radio button should be displayed		
8		Expected Result - An error message should be displaying quoting check-out date greater than check-in date		Steps to Reproduce:	High	High
9		Actual Result - All the data fields are displayed despite none of the fields should be displayed		1. Open google Chrome		
10				2. Launch the website "www.raj.tavel"		
11				3. Choose the desired Radio Button "India" or "International"		
12				3. Select a valid check out date and select a valid check in date greater than the check out date		
13	DEF_003	When the traveller selects the city as "Delhi" the details of the city "Calcutta" are displayed	Yes	4. Select the Launch Button		
14		Expected Result - The Details for the City "Delhi" should be displayed.		PreCondition - The Website for Raj Travels should be loaded	High	High
15		Actual Result - The Details for the City "Calcutta" are displayed inspite of "Delhi".		Steps to Reproduce:		
16				1. Open google Chrome		
17				2. Launch the website "www.raj.tavel"		
18				3. Select India Radio Button		
19				4. Select City as "Delhi"		
20				5. Select remaining fields with valid data		
21				6. Select the Launch Button		
22						
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32						
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34						
35						
36						
37						

Ready | Index | TEST SCENARIO | TEST CASES | DEFECT REPORT | RTM | 75%

Fig. 2: Defect Report

2.2 Stage 2- Core and Advanced Java

Week 2,3,4:

- Programming with java with JDBC
- Behavioral skills

In this week we all have to do is to complete Udemey courses provided by the cognizant during the internship, complete the hands-ons, assessment(important), and to complete the integrated capability test also.

In this week 2 we learned the core java part from scratch with the help of the Udemey courses and trainer guide queries.

After we completed the online Udemey courses, we did the hands-ons and completing the hands- on is mandatory for every intern and then, after completing the hands-ons we use to give assessment, a small test whose marks were taken into account, for the calculation of the in the final overall performance.

The most important part of this week was covering all the basis aspects of the core java and learning JDBC and database connectivity with database from scratch because learning java and JDBC is very important in application development.

It also covered integrating of Core java and JDBC with the database to form proper webpage.

This part was very long because it was 3 week long, and we started from core java to advance java part also, connecting small core java with database through database connectivity or JDBC.

These 3 weeks waere very important because we learned very crucial things in this 3 weeks, the most important, that very developer should know for developing application.

We did around 30 hands-ons in this part, the hands-ons were very long and difficult in this part.

The most important thing in those 3 weeks was basics of core java. We learned core java from basics and covering all aspects of the java, its features, its uses and how to develop an application from scratch with the help of the java and connecting with database through JDBC.

JDBC was very important part in this 3 weeks because every application requires the database connectivity, and that's only possible with the database connectivity through JDBC.

We learned all aspects of the JDBC, all types of the Database connectivity and storing data in the tables in the database and also retrieving the data from the database using few lines of the codes.

Connecting to the database is very crucial in the application development and also is the major part in the application development.

Our trainer taught that 4 lines of code will do the same in every code of JDBC, that 4 lines should be known to every java developer who is working with the application development.

We also learned few packages which are very essential in connecting with the database and without those packages, it would not be possible to connect to the database. We also learned 4 types of database connectivity in the java application development.

Below is the sample example of few lines of the codes to store data and retrieve from the table from database.

```

import java.sql.*;

public class FirstExample {
    static final String DB_URL = "jdbc:mysql://localhost/TUTORIALSPOINT";
    static final String USER = "guest";
    static final String PASS = "guest123";
    static final String QUERY = "SELECT id, first, last, age FROM Employees";

    public static void main(String[] args) {
        // Open a connection
        try(Connection conn = DriverManager.getConnection(DB_URL, USER, PASS);
            Statement stmt = conn.createStatement();
            ResultSet rs = stmt.executeQuery(QUERY);) {
            // Extract data from result set
            while (rs.next()) {
                // Retrieve by column name
                System.out.print("ID: " + rs.getInt("id"));
                System.out.print(", Age: " + rs.getInt("age"));
                System.out.print(", First: " + rs.getString("first"));
                System.out.println(", Last: " + rs.getString("last"));
            }
        } catch (SQLException e) {
            e.printStackTrace();
        }
    }
}

```

Fig. 3: JDBC

Above is the small code of database connectivity or JDBC code.

Week-4(continuity)

Access type – 2 (Integrated Capability Test)

After completing few technologies, we had Integrated capability test, in which we combine our all knowledge what we learned in past java, JDBC, and try to solve whole long coding question.

Integrated capability test is of 4 hours, which include all the things what we had learned till now.

It consists of 1 coding question and require full knowledge of all the technologies and integrate that to solve the coding question.

It's a simple or medium size project, which we get as a question in the Integrated capability test within 4 hours.

It contains the huge weightage in the overall performance, the overall performance is calculates as the average of the assessment, Integrated capability test, Business unit score, Project score.

We get two attempts to give the integrated capability test, if we get failed in first attempt then, we get second attempt to give integrated capability test.

And the second attempt is the last attempt to Integrated capability test because failing in the second attempt can lead to the termination of the offer said by the HR in the one session.

2.3 Stage 3 – Web, UI, and Data source

Week 5:

- XML

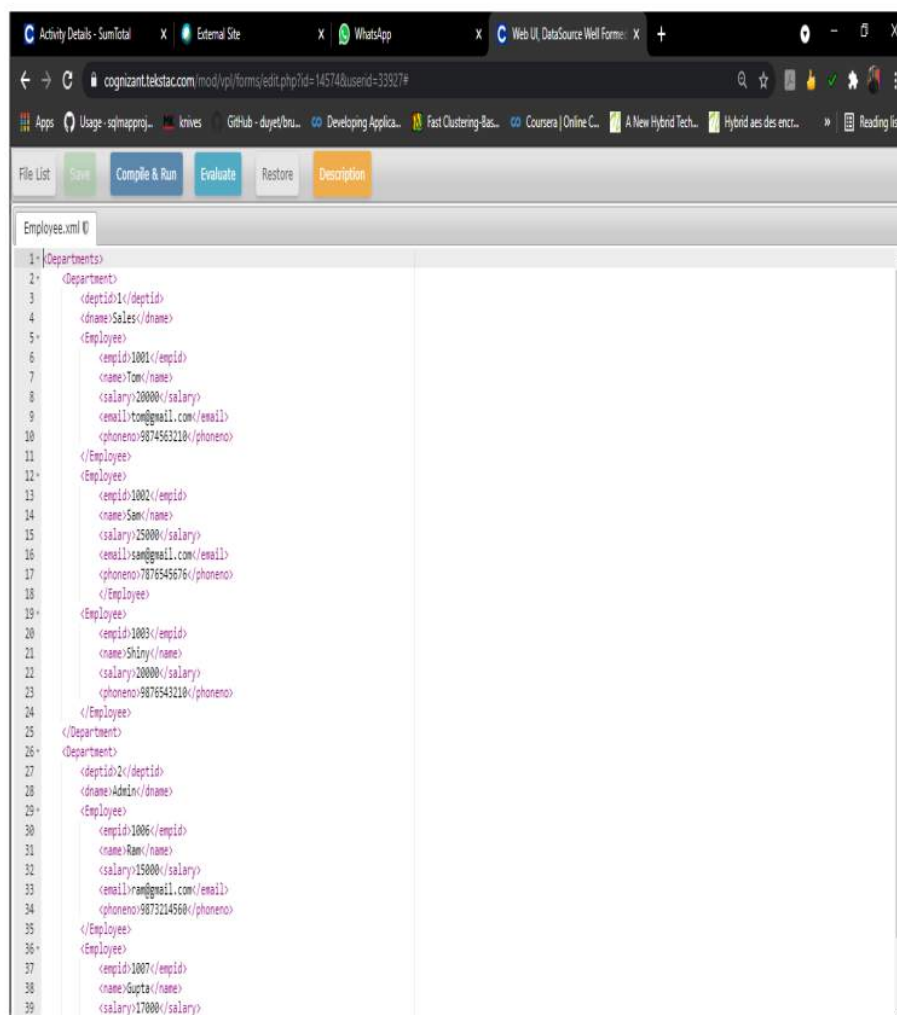
This is the second stage, deep learning the application development through the advance framework of the java. This is stage we learned XML framework.

⁴
XML is a markup language that defines a set of rules for encoding documents in a format that is both human-readable and machine-readable. The World Wide Web

Consortium's XML 1.0 Specification of 1998 and several other related specifications—all of them free open standards—define XML.

The design goals of XML emphasize simplicity, generality, and usability across the Internet. Several schema systems exist to aid in the definition of XML-based languages, while programmers have developed many application programming interfaces (APIs) to aid the processing of XML data.

Below is the sample XML code.



```
1- |Departments
2- |<Department>
3- |  <deptid>1</deptid>
4- |  <aname>Sales</aname>
5- |  <Employee>
6- |    <empid>1001</empid>
7- |    <name>Tom</name>
8- |    <salary>20000</salary>
9- |    <email>tom@gmail.com</email>
10- |    <phonenumber>9874563210</phonenumber>
11- |  </Employee>
12- |  <Employee>
13- |    <empid>1002</empid>
14- |    <name>Sam</name>
15- |    <salary>25000</salary>
16- |    <email>sam@gmail.com</email>
17- |    <phonenumber>7876543210</phonenumber>
18- |  </Employee>
19- |  <Employee>
20- |    <empid>1003</empid>
21- |    <name>Shiny</name>
22- |    <salary>20000</salary>
23- |    <phonenumber>9876543210</phonenumber>
24- |  </Employee>
25- |</Department>
26- |<Department>
27- |  <deptid>2</deptid>
28- |  <aname>Admin</aname>
29- |  <Employee>
30- |    <empid>1006</empid>
31- |    <name>Ram</name>
32- |    <salary>15000</salary>
33- |    <email>ram@gmail.com</email>
34- |    <phonenumber>9873214560</phonenumber>
35- |  </Employee>
36- |  <Employee>
37- |    <empid>1007</empid>
38- |    <name>Supta</name>
39- |    <salary>17000</salary>
```

Fig. 4: XML

- Web designing with HTML, CSS and Bootstrap.
- JavaScript.

In this week we all have to do is to complete Udemey courses provided by the cognizant during the internship, complete the hands-ons, assessment(important), and to complete the integrated capability test also.

In this week we learned the designing part from scratch with the help of the HTML5 and CSS and also JavaScript.

After we completed the online Udemey courses, we did the hands-ons and completing the hands- on is mandatory for every interns and then, after completing the hands-ons we use to give assessment, a small test whose marks were taken into account, for the calculation of the in the final overall performance.

The most important part of this week was covering all the basis aspects of the designing and learning HTML and CSS and JavaScript from scratch because learning HTML and CSS is very important in designing.

It also covered integrating of HTML and CSS with the JavaScript to form proper webpage.

Below is the sample HTML and CSS, and JavaScript Code.

```
CSSpractice.html x style.css
1 <!DOCTYPE html>
2 <html lang="en-US">
3   <head>
4     <link rel="stylesheet" href="css/style.css" />
5     <title>HTML Page with CSS</title>
6   </head>
7   <body>
8     <header>
9       Fake Industry Expo Announcement
10    </header>
11    <article>
12      Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do
13      velit esse cillum dolore eu fugiat nulla pariao csstur. Excepte
14    </article>
15    <footer>
16      &copy; Copyright Imaginary Organization 2016
17    </footer>
18  </body>
19 </html>
20
21 body {
22   font-family: 'Segoe UI', Tahoma, Geneva, Verdana, sans-serif;
23 }
24
25 article {
26   color: #5C373C;
27   margin: 10px;
28 }
29
30 footer {
31   font-size: x-small;
32   font-style: italic;
33   background-color: #C14860;
34   padding: 10px;
35 }
36
37 header {
38   font-size: x-large;
39   font-weight: bold;
40   text-align: center;
41   background: -moz-linear-gradient(#051118, #5C373C);
42   color: #CAA893;
43   border: thin #CAA893 inset;
44   margin: 20px 30px;
45   padding: 10px 20px;
46 }
```

Fig. 5: JS

Week 7, 8:

- Database and Data source.

In this week we all have to do is to complete Udemey courses provided by the cognizant during the internship, complete the hands-ons, assessment(important), and to complete the integrated capability test also.

In this week 2 we learned the database part from scratch with the help of the MySQL and MySQL queries.

After we completed the online Udemey courses, we did the hands-ons and completing the hands- on is mandatory for every interns and then, after completing the hands-ons we use to give assessment, a small test whose marks were taken into account, for the calculation of the in the final overall performance.

The most important part of this week was covering all the basis aspects of the database and learning MySQL and queries and database from scratch because learning MySQL and queries is very important in database.

It also covered integrating of HTML and CSS with the database to form proper webpage.

Below is the sample MySQL code.

```
1 shell> mysql your-database-name
```

Fig. 6: SQL

```

1 CREATE TABLE shop (
2   article INT UNSIGNED DEFAULT '0000' NOT NULL,
3   dealer CHAR(20) DEFAULT '' NOT NULL,
4   price DECIMAL(16,2) DEFAULT '0.00' NOT NULL,
5   PRIMARY KEY(article, dealer));
6 INSERT INTO shop VALUES
7   (1, 'A', 3.45), (1, 'B', 3.99), (2, 'A', 10.99), (3, 'B', 1.45),
8   (3, 'C', 1.69), (3, 'D', 1.25), (4, 'D', 19.95);

```

Fig. 7: SQL 2

```

1 SELECT * FROM shop ORDER BY article;
2 +-----+-----+-----+
3 | article | dealer | price |
4 +-----+-----+-----+
5 |      1 | A      | 3.45 |
6 |      1 | B      | 3.99 |
7 |      2 | A      | 10.99 |
8 |      3 | B      | 1.45 |
9 |      3 | C      | 1.69 |
10 |      3 | D      | 1.25 |
11 |      4 | D      | 19.95 |
12 +-----+-----+-----+

```

Fig. 8: SQL 3

CHAPTER - 3

SOFTWARE REQUIREMENT SPECIFICATION (SRS)

- **Microsoft Office Package**

1 Microsoft Office is a suite of desktop productivity applications that is designed specifically by Microsoft for business use. It is a proprietary product of Microsoft Corporation and was first released in 1990. For decades, MS Office has been a dominant model in delivering modern office-related document-handling software environments.

- **Eclipse**

Eclipse is an integrated development environment (IDE) used in computer programming.^[5] It contains a base workspace and an extensible plug-in system for customizing the environment. Eclipse is written mostly in Java and its primary use is for developing Java applications, but it may also be used to develop applications in other programming languages via plug-ins, including Ada, ABAP, C, C++, C#, Clojure, COBOL, D, Erlang, Fortran, Groovy, Haskell, JavaScript, Julia,^[6] Lasso, Lua, NATURAL, Perl, PHP, Prolog, Python, R, Ruby (including Ruby on Rails framework), Rust, Scala, and Scheme. It can also be used to develop documents with LaTeX (via a TeXlipse plug-in) and packages for the software Mathematica. Development environments include the Eclipse Java development tools (JDT) for Java and Scala, Eclipse CDT for C/C++, and Eclipse PDT for PHP, among others.

- **Visual Studio Code**

2 **Visual Studio Code** is a freeware source-code editor made by Microsoft for Windows, Linux and macOS.^[9] Features include support for debugging, syntax highlighting, intelligent code completion, snippets, code refactoring, and embedded Git. Users can change the theme, keyboard shortcuts, preferences, and install extensions that add additional functionality.

- **MS SQL**

Microsoft SQL Server is a relational database management system developed by Microsoft. As a database server, it is a software product with the primary function of storing and retrieving data as requested by other software applications—which may run either on the same computer or on another computer across a network (including the Internet). Microsoft markets at least a dozen different editions of Microsoft SQL Server, aimed at different audiences and for workloads ranging from small single-machine applications to large Internet-facing applications with many concurrent users.

- **Cisco WebEx**

Cisco WebEx is an American company that develops and sells web conferencing and videoconferencing applications. It was founded as WebEx in 1995 and taken over by Cisco Systems in 2007. Its headquarters are in Milpitas, California.

Its software products include WebEx Meetings, WebEx Teams, Training Centre, Event Centre, Support Centre, Sales Centre, MeetMeNow, PCNow, Webex AIM Pro Business Edition, WebEx Web Office, and WebEx Connect. All WebEx products are part of the Cisco Systems collaboration portfolio.

CHAPTER - 4

RESULT AND PERFORMANCE ANALYSIS

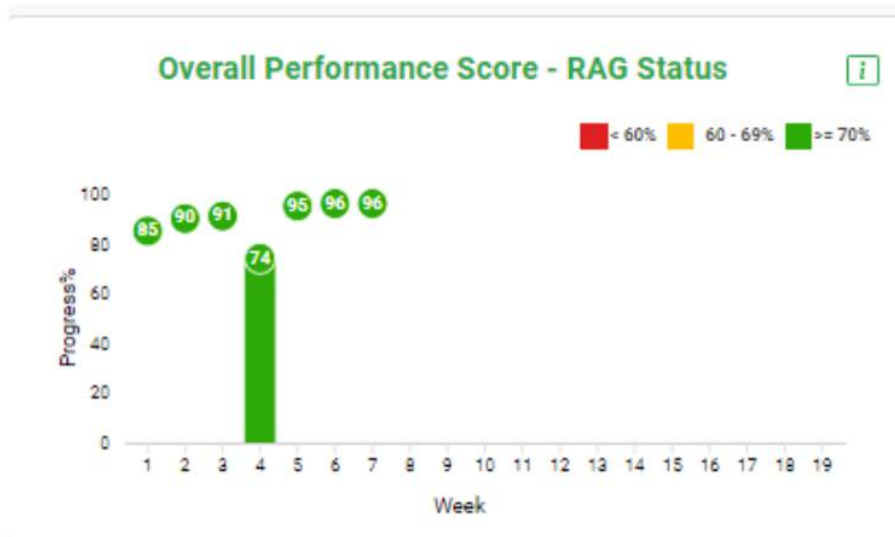


Fig. 9: RAG

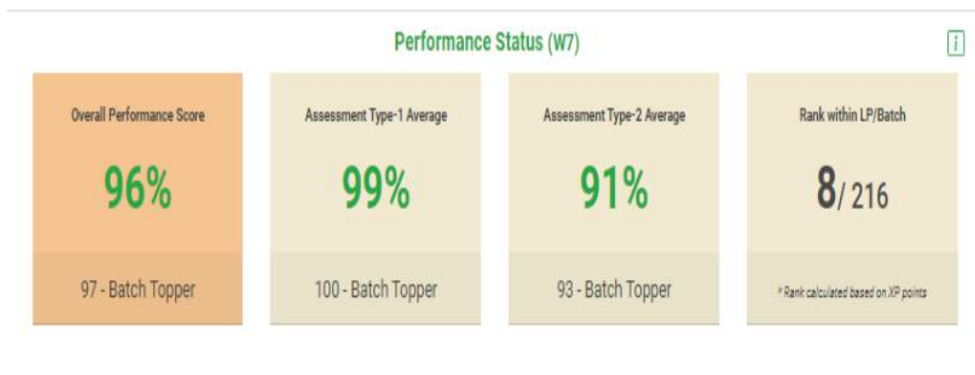


Fig. 10: Performance Status

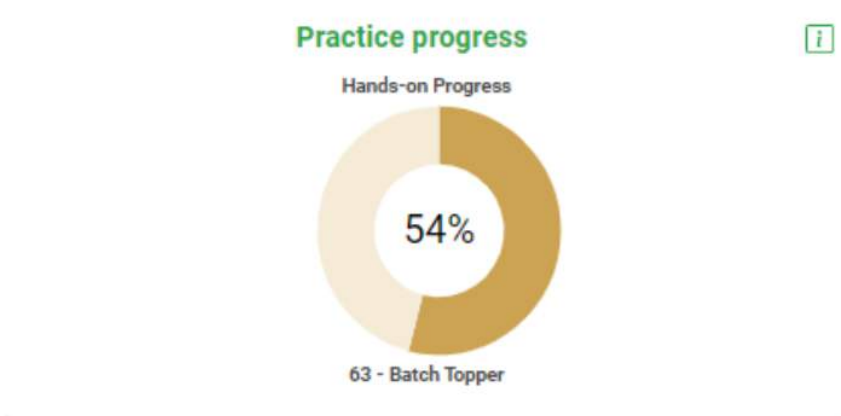


Fig. 11: Practice Progress

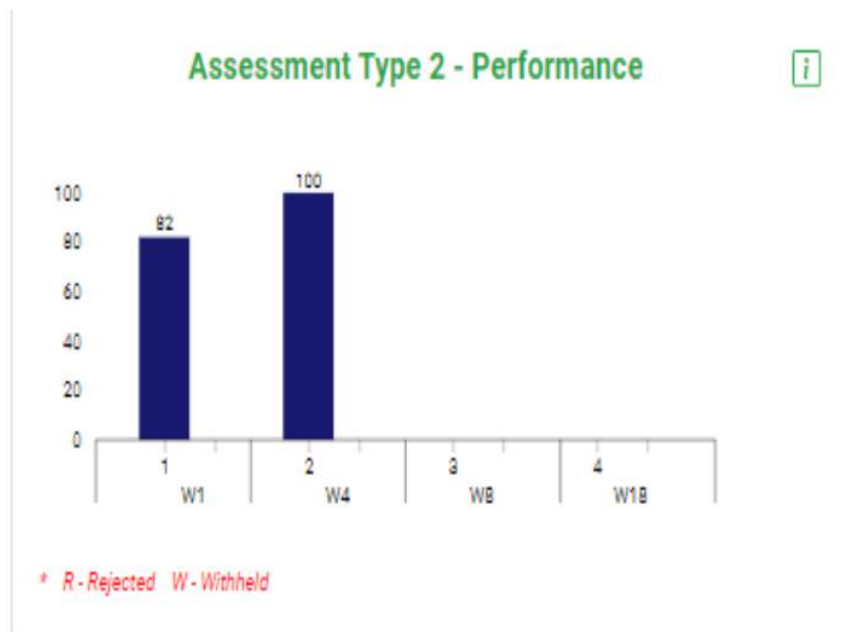
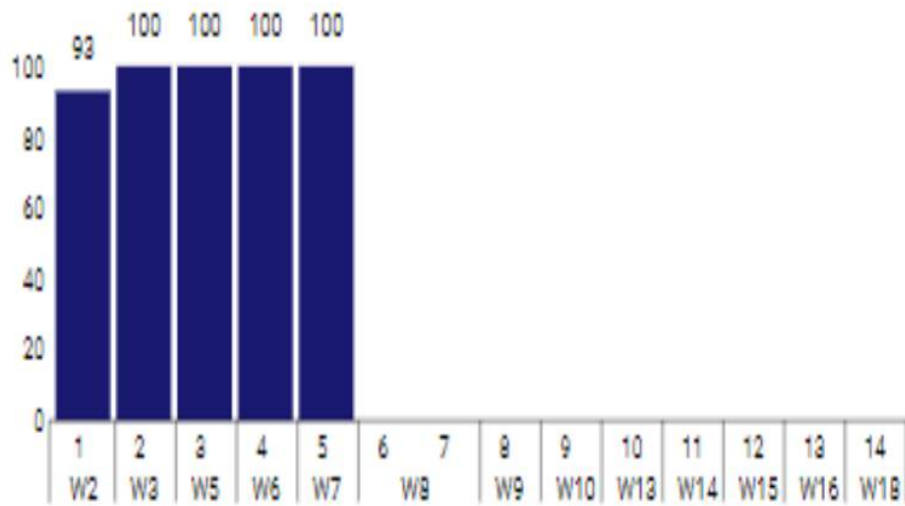


Fig. 12: ICT Progress

Assessment Type 1 - Performance



* R - Rejected W - Withheld

Fig. 13: Code Challenge Progress

CHAPTER -5

CONCLUSION

5.1 Conclusion

I am still on the way doing my internship with the cognizant and I have learned so much from this internship offered by the internship, rally helped me in shaping my personality and equipping me with the knowledge of this technologies.

My Final internship project is still remaining with cognizant internship and I will give my best in doing the internship project.

I like to thanks in advance to the coaches, SME, mentor and trainer of cognizant who guided me through the whole journey of my internship in cognizant and solved all my doubts during the internship. The Coaches, SME, Mentor and trainer were all of good nature and at every moment helped me when I was doing wrong and shaped me during my whole internship.

Specially the my mentor gave his more effort during the internship and passed our all query to the higher authority in the company whether it was related to the reattempt of the assessment, technical issue faced in the assessment or providing extra time to complete the work.

I would highly recommend my juniors once to prepare well for the offer in the cognizant and get the internship opportunity form the cognizant because cognizant is top fortune company in the information technology field.

I like thank you my TNP officer Mr. Pankaj Kumar and Faculty member Dr. Nafis U khan sir for their support and hard work during the whole placement process because I know how complex is the management of the placement drive.

Himanshu_mutunja_major

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